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### ABSTRACT

209 children residing in an institution for dependent children were used as subjects for the development of an institutional behavior rating scale. Results of a factor analysis are discussed in detail. It is noted that potential uses of the scale are: 1) to give the psychologist a picture of the child's daily functioning in various situations; 2) to act as a screening device for recent admissions; 3) to help make remedial behavior prescriptions. (MS)



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REPRESENT OFFICIAL OFFICE OF EDU-CATION POSITION OR POLICY. Development of an Institutional Behavior Rating Scale

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I would like to talk today about the initial phase in the development and use of a behavior rating scale as a prescriptive screening device in institutional settings. One problem confronting the clinical psychologist who operates in a school or institutional setting is the large number of children who may be in need of clinical attention. The people who have the most contact with the child, who know his behavior best, are the teachers and the child-care workers. Their knowledge of the children under their care is often not available to the psychologist: at times because of scheduling difficulties, and often due to the large amounts of time required in conferences which make staif members reluctant to participate. In addition, many children who need clinical attention may never be referred, as they are problems only to themselves: the shy, withdrawn, mildly retarded youngsters who get lost in the shuffle, who fall into the background behind the sharp figure of the hyperactive, aggressive child.

It was felt that the development of a behavior checklist, which could be quickly filled out, and which tapped several important areas of functioning, including positive as well as negative behaviors, could help to fill this information gap. The data from such a rating scale could be used to:

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- (1) give the psychologist a picture of the child's daily functioning in various settings: the group, the school, the home,
- (2) to act as a screening device for recent admissions, where the child's scores could be compared to institutional norms,
- and (3) to help make remedial behavior prescriptions based on the patterns of .
  behavioral strengths and weaknesses suggested by the BRS scores.

The subjects were 209 children (95 females, 114 males) ranging in age from 3 to 19 years residing in an institution for dependent children. This was the entire population of the institution. The children were predominantly Puerto Rican and Negro in background, and all of them had been placed in the institution because their parents were unable to care for them. The average length of stay was 2.4 years, with a range from 6 months to 12 years. The raters were 12 senior childcare workers (group mothers), each of whom rated the children in their own group.

Procedure

The initial scale was developed from published rating scales reporting factorial structure. Seven scales (Aggressiveness, Feorfulness, Unrelatedness, General Retardation, Excitability, Positive Relationships, and Positive Problem Solving Skills) each with 30 items served as the initial item pool. Seven clinical



Subjects.

psychologists and three teachers ranked each item along a 5 point scale of severity or intensity of symptomatology. The mean ranking and semi-interquartile range were computed for each item. Within each of the seven scales items were then grouped together if they had similar mean severity ratings. These groups of items were then sorted into one of six equal appearing intervals along the intensity dimension. Thus, if the Aggressiveness items had fallen into 8 groups each with different mean severity rankings we would select the six groups which gave the best "spread" over the intensity dimen-Those items within each of the six intervals with the smallest semision. interquartile range (suggesting less variation or greater agreement among judges) were then selected. From these, one single item for each point was chosen on the basis of simplicity of vocabulary and succinctness of statement. Thus, 6 items were selected for each of the seven scales, resulting in a 42 item behavior rating scale. Each item within a scale represented a successively more intense manifestation of the construct being measured.

For example: the Aggressiveness scale ranged from a low of becoming "sullen and sulky" when frustrated, though "bullying others" to "destroys property". The positive relationships scale ranged from "even tempered, relaxed",



-4-

through "offering to share with others" to being "sympathetic and thoughtful" toward others.

The resulting 42 item scale was given to the institution staff to be used in their ratings of the children. Each item was rated on a 3 point scale 0=never, 1=sometimes, 2=often). Each child then had a score ranging from zero to two on 42 items. These scores were then entered into a scale-by-scale correlation matrix (across subjects), factor analyzed using a principle components solution, and rotated to a varimex criterion.

### Results

rotated. Items with loadings greater than .40, which did not also load at this level on any other factors were selected. The handouts show these factors. Since each item loads high on only one factor we hoped that this would increase the uniqueness of the scores derived from the BRS. If you will look at the handout, I will briefly describe the factors. The dotted line which you will see running through the listing of the factors indicated the "cut-off" point. Items above the dotted line load uniquely or predominantly on the factor. Those below the line load equally on one or more other factors.

I. Factor one may be labeled Aggressive-Excitability. It includes such items



as "impulsive, cant wait", "moves constantly, into everything", "tries to intimidate, bully others", "destroys property" and so forth.

II. Factor two, labeled Cognitive Efficiency, or perhaps better Cognitive Inefficiency, is a bipolar factor involving such items as "unable to grasp ideas, puzzled", "short attention span", "demonstrates imaginativeness and creativity", and "careful and self-sufficient in tasks he undertakes". It clearly reflects degree of problem solving skills.

III. Pro-social behavior is the third factor. This might also be called the Nice Kid factor, as it includes such items as "seems eager to please", "sympathetic toward others", "shows pride in accomplishments" and so forth.

IV. Factor four might be labeled Social Avoidance, and seems as if it might be the other pole to factor III. It includes such items as: "reluctant to talk to adults", "disinterested in playing with others", "distrustful and aloof from others", et cetera.

V. The last factor, number five, is labeled Spoiled Kid, in contradistinction to factor three. It might also be called a passive-aggressive factor: it has few items and is thus somewhat difficult to label easily. Its items are "feelings easily hurt", "jealous, acts negatively to kindness and attention given to others", and "when frustrated becomes sullen, sulky".



### **Discussion**

The five factors found in the present data relate meaningfully to the original, rationally derived factors. The positive skills (problem solving and relationships) were collapsed into one factor: Pro-social (III), and much of the general retardation and positive problem solving skills items were collapsed into a bipolar factor: cognitive efficiency (II). The present factors also seem to be potentially quite useful for institutional settings, as they appear to be relevant to questions of behavioral management.

Factors I, IV, and V (Aggressive-Excitability, Social Avoidance, and Passive Aggressive) clearly reflect the kinds of concerns child-care workers have in their dealings with children: lack of self-control, aggression, and lack of social responsiveness. Children who score high on such factors will most likely be difficult to handle in group-living situations. Factor III (pro-social behavior), on the other hand, represents the ideal child who is sensitive to others, responsive and independent. It represents an important strength in the child, of great use to the child-care worker or teacher. Children who score high on factor II (cognitive efficiency, or the lack thereof), however, would probably tend to be ignored: they are the silent, ill-equipped youngsters who slip off to the side and fall further and further behind in academic and social skills.



To clarify further the potential usefulness of such scales as the present one, I would like to present, briefly, some examples of how it has been used in two settings: the home for dependent children from which the factors are derived, and a special school for brain injured children.

The first example is the problem of Grouping. When children enter the institution or the special school, one of the first problems to be faced is: in which group or classroom should the child be placed? Ratings made by the child-care staff after a pre-placement visit of two or three days -- or by teachers in the Brain Injured school after a similar pre-admission visit -- have been useful in such placement decisions. In the BI school we have found that the checklist allows us to judge the relative behavioral strengths and weaknesses of the child, in the classroom situation, well enough to place him in a heterogeneous group. We have found that behavioral contagion or cascading has been diminished when we "spread out" or place into different groups, children whose highest scores are on the Aggressive-Excitability factor. Similarly, those scoring high on Social Avoidance have fared better in groups with a number of children high on Pro-Social behavior, and with few who are high on Aggressive-Excitability. The BRS helps in maintaining the heterogeneous balance in these classroom groups. Similar considerations may also be applied to group living situations. Ratings by parents and previous teachers,



where available, have also been useful in this regard.

The second example is in assessing Situational Reactions. In the dependent children's institution children are referred to the psychologist from two major sources: the on-grounds school, and the group living area. All referrals are accompanied by a checklist filled out by the child's social worker, teacher, counselor, and senior child-care worker ("group mother"). In most cases the relative scores on each factor are similar across raters. However, there are occasions when there are marked differences in the pattern of scores among raters: usually with only one rater disagreeing with the others. In such cases discussion with the different raters and behavioral observations, particularly in the setting showing the highest divergence, have proven useful. Often the contingencies of the setting and/or the behavior of the rater, have proved to be the source of the problem. Discussion and behavioral counselling have usually worked quite well in such cases in alleviating the problem. The BRS in such cases alerted the psychologist to potential situational factors, and often obviated the need for elaborate testing and "personality" evaluation.

The final example of the usefulness of the BRS is in the area of <u>Evaluation</u>.

Whenever programs designed to change children's behavior are instituted, some form of evaluation is necessary. In working with groups, and where there is limited



a "pre-post" evaluation technique. It is a rather superficial one, and subject to all the pitfalls of contamination resulting from having those carrying out a program, doing the evaluation of its effectiveness. However, it is none-the-less a useful "quick and dirty" way to get some feedback regarding the efficacy of the program.

The next steps in our development of the present BRS will be to add items to the present scales and to relate the obtained factor scores to various criterion measures. Those presently being collected are: intellectual and school achievement measures, clinic referrals, and ultimately, responsiveness to specific treatment programs aimed at the behaviors tapped by the scales. We hope, in the end, to have an instrument which can be administered by relatively untrained personnel, and which can yield important and useful data relevant to the child's present functioning in a group-living or classroom situation.



Development of an institutional behavior rating scale

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## FACTOR I: AGGRESSIVE EXCITABILITY

Iter	<u>n</u>	Loading
1.	Impulsive, "can't wait".	.69
2.	Moves constantly, "gets into everything".	.63
3.	Tries to intimidate, bully others to do as he wishes	.63
4.	Chatters, talks incessantly, interrupts.	.61
5.	Destroys property.	.61
6.	Refuses or resists what is expected by adults.	.56
7.	Is excessive in seeking attention of adults.	.50
8.	Indifferent to matters of personal hygiene.	.48
9.	Disinterested in the general quality of his per-	• • • •
	formance, careless	.46
10.	Needs unusual amount of prodding to get tasks completed	.45
11.	Jealous, acts negatively to kindness and attention	
	given to others.	.41
	Has attacks of panic	.41
13.	Tends to blame others when things go wrong	.40

### FACTOR II: COGNITIVE EFFICIENCY

<u>Item</u>		Loading
1.	Unable to grasp ideas, puzzled.	.78
2.	Short attention span.	.72
3.	Forgets or unable to apply basic skills	.71
4.	Speech not sensible nor connected	.61
5.		.57
6.		51
7.		.50
8.	Careful and self-sufficient in tasks he undertakes	50
9.	Tends to discontinue activities after minimum effort	.47
10.	Tries to figure things out for himself before asking	
	for help.	46
• •		
11.		
		.42
12.	Approaches new tasks timidly and without assurance.	.40
3. 4. 5. 6. 7. 8. 9. 10.	Forgets or unable to apply basic skills Speech not sensible nor connected Easily distracted by things going on around him. Demonstrates imaginativeness and creativity Very suggestible, passively lets others make up his mind. Careful and self-sufficient in tasks he undertakes Tends to discontinue activities after minimum effort Tries to figure things out for himself before asking	.71 .61 .57 51 .50 50 .47

Items above dotted line load uniquely or predominantly on this factor. Those below the line load equally on one or more other factors.



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# FACTOR III: PRO-SOCIAL BEHAVIOR

Item		Loading
1.	Seems eager to please, to accomodate others.	.73
2.	Sympathetic, thoughtful toward others.	.73
3.	Offers to share own things with others.	. 67
4.	Acts promptly, pleasantly to learning materials.	. 57
5.	Curious, asks questions for information (not, just	
	attention).	. 53
6.	Tends to blame other's when things go wrong.	51
7.	Shows pride in accomplishments.	. 48
	Eager to inform others of experiences he has had. Careful and self-sufficient in tasks he undertakes. Likes to talk and socialize with adults. Demonstrates imaginativeness and creativity.	. 46 . 45 . 44 . 43

# FACTOR IV: SOCIAL AVOIDANCE

<u>Item</u>		Loading
3.	Reluctant to talk to adults. Disinterested in playing with or being accepted by others Distrustful, suspicious, keeps aloof from others. Likes to talk and socialize with adults	.68 .64 .61 54
6.	Eager to inform others of experiences he has had. Apathetic, absence of appropriate emotional responsiveness Indifferent to toys or other objects.	47 .45 .43

# FACTOR V: "SPOILED KID"

Item	<u>.</u>	Loading
1.	Feelings easily hurt	.55
	Jealous, acts negatively to kindness and attention	
	given to others.	.49
З.	When frustrated becomes sullen, sulky.	.42

# ITEMS LOADING 2.40 ON MORE THAN ONE FACTOR, OR NOT LOADING 2.40 ON ANY FACTOR

10.	9	•	7.	თ •	<del>ن</del>	÷	ω •	2.	۳		Item
Demonstrates imaginativeness and creativity.	Fearful of physical harm.	Careful and self-sufficient in tasks he undertakes	Eager to inform others of experiences he has had.	Remains in one place unless directed into some activity.	Jealous, acts negatively to kindness and attention given to others.	Likes to talk and socialize with adults.	Disinterested in the general guality of his performance, careless.	Even tempered, relaxed.	Approaches new tasks timidly and without assurance.		m ·
.046	086	080	.220	149	.412	.135	+64·	328	055	н	
513	.215	502	138	.170	116	104	.415	089	.398	II	Loadings
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084	016	.035	473	. 351	.117	542	.194	137	. 259	IV	
010	.246	036	.122	.387	.493	.211	.001	308	. 286	< <	